

SUBJECT INDEX

A

- Abrams, P. A., 433
- Acetogenins
 - brown algae and, 118
 - seaweeds and, 112
- Acantharia
 - microplankton and, 22
- Acorus calamus*
 - freshwater/salt marshes and, 157
- Acropora valida*
 - El Nino and, 318
- Adams, D. D., 169
- Adams, E. N., 240
- Adaptation
 - evolution and, 408-10
- Adedipe, N. O., 195
- Agerter, C. J., 376
- Aggression
 - kinship and, 554-55
- Agropyron spicatum*
 - herbivory and, 68
- Agropyron smithii*
 - mycorrhizae and, 78
- Alaria marginata*
 - phenolics of, 120
- Algae
 - benthic
 - El Nino and, 317
 - Diadema antillarum* mass
 - mortality and, 382-84
 - freshwater/salt marshes and, 158
 - marine
 - secondary metabolites of, 112-21
 - See also specific type
- Alismatidae
 - hydrophilous species in, 269-70
- Allee, W. C., 495
- Allen, J. S., 313
- Alloparenting
 - kinship and, 547-48
- Alnus tenuifolia*
 - species interactions of, 75
- Alsophila pometaria*
 - species interactions of, 76
- Altruism
 - kinship and, 547
- Amphibians
 - freshwater/salt marshes and, 160
 - vicariance biogeography and, 516

- Amphibolis antarctica*
 - pollination of, 267
- Amphicarpaea bracteata*
 - species interactions of, 72
- Amphipods
 - freshwater/salt marshes and, 159
 - seaweed chemical defenses and, 131
- Amphithoe humeralis*
 - seaweed chemical defenses and, 131
- Anagenesis, 411-12
- Analipus japonicus*
 - phenolics of, 120
- Andrewartha, H. G., 480, 491
- Angiosperms
 - vicariance biogeography and, 517
- Animals
 - susceptibility to disease in
 - ontogenetic changes and, 68
- Antilles
 - insect seasonality in, 6
- Ants
 - kin recognition of, 545
 - plant interactions of, 73
 - species interactions of, 70-71
- Apalachicola Bay (Florida)
 - nutrient limitation in, 103
- Aphids
 - seasonality of, 7
- Aplysia* spp.
 - seaweed chemical defenses and, 133-34
- Aplysiatoxin
 - blue-green algae and, 118
- Aplysin
 - seaweed chemical defense and, 125
- Appanah, S., 356, 357, 363
- Appertella* spp.
 - pollination of, 266
- Arachnids
 - vicariance biogeography and, 516
- Arbacia punctulata*
 - seaweed chemical defenses and, 125
- Archie, J. W., 460, 462
- Arecidae
 - hydrophilous species in, 269
- Arnold, S. J., 447
- Arthropods
 - soil, 582

- Ascoglossans
 - seaweed chemical defenses and, 131-33
- Ascophyllum nodosum*
 - phlorotannins of, 121
- Ashton, P. S., 347, 348, 350, 351, 353
- Asparagopsis* spp.
 - biologically active compounds of, 116
- Atchley, W. R., 446, 452, 453
- Atsatt, P. R., 415
- Avena* spp.
 - species interactions of, 71-72
- Avrainvillea* spp.
 - biologically active compounds of, 116
- Axelrad, D. M., 169
- Azam, F., 23

II

- Bacteria
 - erythromycin resistance in, 413
 - growth in seawater
 - quantification of, 23
 - magnitude in seawater, 21
 - soil and, 577-78
- Bak, R. P. M., 378
- Ball, I. R., 515
- Baltic Sea
 - eutrophication in, 90
 - nitrogen-fixing cyanobacteria in, 100
- Barley
 - gene-for-gene interactions of, 77
- Barrowclough, G. F., 483, 484, 485
- Bartlett, K. B., 166
- Batesian mimicry
 - classification of, 66
 - coevolution and, 74
- Bauer, J. C., 376
- Bawa, K. S., 177, 195
- Beattie, A. J., 73
- Bembidion nigricorne*
 - activity period of, 5
- Bennett, A. F., 455
- Berberis* spp.
 - brood size of, 187
- Berry, R. J., 474, 478
- Bidens laevis*
 - freshwater/salt marshes and, 157

592 SUBJECT INDEX

- Bierregaard, R. O., 502
- Biogeography
 island, 475-76
 vicariance, 513-35
 analytical methods in, 517-34
 study of groups in, 516-17
- Biological oceanography, 19-20
- Birch, L. C., 480, 491
- Birds
 habitat utilization of, 216
 kin recognition of, 545
 parent-offspring conflict in, 193-94
 vicariance biogeography and, 516
- Bivalves
 freshwater/salt marshes and, 159
- Blue-green algae
 chemical defenses of, 118-19
- Boesch, D. F., 159
- Bonnemaisoniaceae
 biologically active compounds of, 116
- Bonnemaisonia* spp.
 biologically active compounds of, 116
- Bookman, S. S., 195
- Bookstein, F. L., 464
- Boreus hyemalis*
 activity period of, 5
- Boulenger, G. A., 42
- Bowden, W. B., 168
- Boynton, P., 94
- Brain, C. W., 315
- Brinson, M. M., 158
- Brock, T. D., 166
- Bromus tectorum*
 herbivory and, 68
- Brooks, D. R., 518, 529, 534
- Brown, J. H., 207
- Brown, J. R., 45
- Brown, J. S., 281, 423
- Brown, L. E., 45
- Brown algae
 chemical defenses of, 117-18
 chemical variation in, 128
 phlorotannins of, 126-27
- Brownian motion
 covariances and, 447-49
- Brundin, L., 515
- Bryant, R. J., 580
- Burdon, J. J., 71
- C
- Caesalpinia pulcherrima*
 parent-offspring conflict in, 194-95
- Calligrapha* spp.
 feeding behavior of, 223
- Callitrichaceae
 hydrophilous species in, 269
- Callitriche* spp.
 pollination of, 268
- Camerarius, R. J., 261
- Campbell, J. A., 410, 413
- Cannibalism
 kinship and, 553
- Carbon
 freshwater/salt marshes and, 153
- Case, T. J., 216
- Caulerpacaeae
 biologically active compounds of, 116
- Caulerpales
 biologically active compounds of, 116-17
- Caulerpa* spp.
 biologically active compounds of, 116
 chemical defenses of, 124
- Caulerpenye, 124
- Caulerpicin, 124
- Caulerpin, 124
- Cavaliere, A. J., 161
- Cavalli-Sforza, L. L., 447, 448
- Cavolini, F., 261, 262
- Cellulose
 intertidal vascular plants and, 164
- Ceratophyllaceae
 hydrophilous species in, 269
- Ceratophyllum* spp.
 pollination of, 268
- Cercidium* spp.
 brood size pattern of, 187
- Chaemaecyparis thoides*
 freshwater/salt marshes and, 158
- Chai, E. O. K., 351
- Chakraborty, R., 450
- Chambers, R. M., 153
- Chan, H. T., 356, 363, 366
- Chapin, F. S. III, 75
- Character coding, 460-63
- Charlesworth, B., 463
- Chesapeake Bay
 eutrophication in, 90
- Cheverud, J. M., 452, 455
- Chial, B., 312
- Chironomids
 seasonality of, 6
- Chlorodesmin
 seaweeds and, 124
- Chlorodesmis fastigiata*
 chemical defenses of, 124
- Chlorodesmis* spp.
 biologically active compounds of, 116
 chemical defenses of, 124
- Chloronia* spp.
 adult activity period of, 5
- Chlorophyta
 chemical defenses of, 116-17
- Chlorophytes
 nanoplankton and, 21
- Chloroplasts
 evolution of, 415
- Chloroplast symbiosis, 32-33
- Chondrococcus* spp.
 biologically active compounds of, 116
- Christmas Island lagoon
 nutrient limitation in, 104-5
- Chrysomonads
 nanoplankton and, 21
- Cicadas
 seasonality of, 7
- Cichlids
 ecological specialization in, 224
- Ciliates
 chloroplast symbiosis in, 32-33
- Cladogram analysis
 vicariance biogeography and, 518-20
- Cladophora fascicularis*
 brominated diphenyl ether of, 117
- Cliff, A. D., 459
- Cody, M. L., 207
- Coevolution
 host-parasite systems and, 250-57
- Coleoptera
 seasonality of, 3, 6
- Colwell, R. K., 8, 217
- Commensalism
 species interactions and, 66
- Component analysis
 vicariance biogeography and, 520-28
- Consensus trees
 host-parasite systems and, 240-45
- Conservation
 holistic, 500-2
 population biology and, 473-504
- Convergent evolution
 hydrophilous plants and, 273-75
- Cook, C. D. K., 269
- Cooperation
 kinship and, 546-50
- Cope, E. D., 42
- Copepods
 freshwater/salt marshes and, 159
 marine food chain and, 20
 population oscillations of, 26

Coral reefs
 El Nino and, 318-19, 332-33
 Corals
Diadema antillarum mass mortality and, 384-85
 reef-building
 dinoflagellates and, 77-78
 vicariance biogeography and, 516
 Corydalidae
 adult activity period of, 5
Corydalis armatus
 bimodal distribution of, 5
 Cospeciation
 macroevolution and, 236
 peripheral isolation and, 535
 Covariances
 Brownian motion and, 447-49
 genetic drift and, 449-50
 heterogeneity of, 466-67
 natural selection and, 451-53
 Cox, G. W., 493
 Crow, R. C., 514
 Croizat, L., 514
 Crow, J. F., 488
 Crustaceans
 enzyme polymorphisms in, 213
 freshwater/salt marshes and, 159
 vicariance biogeography and, 516
 Curtis, J. T., 499
 Cyanobacteria
 marine photosynthetic activity of, 21
 nitrogen-fixing
 abundance in marine ecosystems, 100-1
 Cyanophyta
 chemical defenses of, 118-19
Cycas circinalis
 pollination of, 269
 Cymodoceaceae
 hydrophilous species in, 270
Cymodocea nodosa
 hydrophilous pollination in, 262
Cymodocea spp.
 pollination of, 267
 Cymopol
 seaweed chemical defense and, 125
Cymopolia barbata
 chemical defenses of, 125
 terpene-hydroquinones of, 117
Cymopolia spp.
 chemical defenses of, 124
Cyrtobagrus spp.
 growth of
 N fertilizer and, 79

D
 Dacey, J. W. H., 166
Dalbergia sissoo
 parent-offspring conflict in, 194
Dalbergia spp.
 intrapod seed abortion in, 198
 Danks, H. V., 10
 Darwin, C., 69, 423, 424, 427, 440, 513
 Darwin, E., 261, 262
Dasycladus vermicularis
 phenolic compounds of, 117
 Davis, D. E., 5
 Dawkins, R., 423, 428
 Daylength
 insect seasonality and, 9-10
 Dayton, P. K., 327
 Deaton, L. E., 160
 Defense
 kinship and, 548-49
 D'Elia, C. F., 96
Deloyala guttata
 species interactions of, 76
 Demographic stochasticity, 489-95
 den Boer, P. J., 491, 492
Dendroica spp.
 habitat requirements of, 208
 Denitrification
 tidal freshwater marshes and, 168
 Deschenes, J., 161
 Desert rodents
 coexistence of, 281-302
 factors in, 299-301
 mechanisms of, 297-99
 models of, 288-97
 diet of, 285-86
 patch exploitation by, 286-87
 resource partitioning and, 288-89
Desmarestia spp.
 sulfuric acid of, 118
 Detling, J. K., 580
Diadema antillarum
 mass mortality of, 371-89
 cause of, 376-77
 community effects of, 381-86
 extent of, 374-76
 geographic spread of, 372-74
 lessons of, 386-89
 population recovery and, 377-81
 terpenoids and, 124-25
 Diamond, J. M., 68, 502
 Diapause
 insect seasonality and, 9

Diatoms
 marine food chain and, 20
 microplankton and, 22
 nanoplankton and, 21
 population oscillations of, 26
 Diaz, R. J., 159
 Dickerson, M. C., 42
 Dieliny
 hydrophilous plants and, 274
 Dicotyledons
 hydrophilous species of, 269
 Dictyol-E
 seaweed chemical defense and, 125
 Dictyopterene
 seaweed chemical defense and, 125
Dictyopteris delicatula
 chemical defenses of, 125
Dictyopteris spp.
 biologically active compounds of, 118
Dictyota dichotoma
 chemical defenses of, 125
 Dictyotales
 biologically active compounds of, 118
Dictyota spp.
 biologically active compounds of, 118
 Diet
 desert rodents and, 285-86
 Diffusion feeding, 25
 Dimethyl sulfide
 salt marshes and, 166-67
 Dinoflagellate blooms
 El Nino and, 324
 Dinoflagellates
 marine food chain and, 20
 microplankton and, 22
 nanoplankton and, 21
 reef-building corals and, 77-78
 Dioecism
 hydrophilous plants and, 274
Diplodus holbrooki
 seaweed chemical defenses and, 125
 Diptera
 seasonality of, 3-4, 6
 Dipteroecarp biology, 347-68
 Dipteroecarpidae, 348-54
 genera and sections of, 354-57
 species of, 357-66
 Disease
 susceptibility to
 ontogenetic changes and, 68
 Dispersal
 inbreeding and, 556

594 SUBJECT INDEX

- vicariance biogeography and, 517
- Diterpenes
 - red algae and, 116
- Diterpenoids
 - green algae and, 116
- DNA
 - length polymorphism in, 398
 - molecular mutations in, 399
- Dobzhansky, T., 5
- Dover, G. A., 407
- Drosophila* spp.
 - α -amanitin tolerance in, 217
 - bristle number in
 - bottlenecks and, 487
 - mutator genes in, 398
 - seasonality of, 6
 - temperature acclimation in, 220-21
- Drosophila tripunctata*
 - oviposition preference in, 214
- Dugdale, R. C., 29
- Dunn, M. L., 164
- Dunstan, W. M., 95
- E
 - Ebenhard, T., 491
- Echinoderms
 - vicariance biogeography and, 516
- Echinoids
 - Diadema antillarum* mass mortality and, 385
- Ecklonia maxima*
 - tanning ability of, 120
- Ecological specialization, 207-27
 - empirical evidence for, 212-14
 - environmental constancy and, 214
 - foraging theory and, 214-15
 - interspecific interactions and, 216-17
 - macroevolutionary aspects of, 222-25
 - mating rendezvous and, 217
 - models of, 209-12
 - trade-offs and constraints in, 218-22
- Edwards, A. W. F., 447, 448
- Ehrlich, P. R., 480
- Eisen, E. J., 487
- Eisenia arborea*
 - phlorotannins of, 122
- Elatol
 - red algae and, 116
 - seaweed chemical defense and, 125
- El Nino-Southern Oscillation, 309-35
 - ecological responses to, 316-26
- events of, 310-16
- extratropical effects of, 326-29
 - recovery after, 329-31
- zooxanthellate invertebrate
 - bleaching and, 332-33
- Elodea* spp.
 - pollination of, 266-67
- Elysia halimeda*
 - seaweed chemical defenses and, 132
- Endler, J. A., 514
- Endoparasites, 580
- Energy conservation
 - ecological specialization and, 221-22
- Enfield, D. B., 313
- Enhalus acoroides*
 - pollination of, 263, 269
- Environmental constancy
 - ecological specialization and, 214
- Environmental stochasticity, 489-95
- Ephemeroptera
 - seasonality of, 3, 7
- Epilobium* spp.
 - pollen grain germination in inhibition of, 197
- Epoxy lactone
 - seaweeds and, 124
- Ernst-Schwarzenbach, M., 262
- Erythromycin
 - bacterial resistance to, 413
- Estes, J. A., 137
- Estuaries
 - biogeochemistry of, 99-101
 - nutrient limitation in, 89-90
- Eutrophication
 - anoxic bottom waters and, 90
- Evolution
 - coexistence of desert rodents and, 299-301
 - convergent
 - hydrophilous plants and, 273-75
 - processes of, 395-418
 - adaptive, 408-10
 - constraining, 398-406
 - direction-determining, 413-17
 - frequency-changing, 406-8
 - mutational, 397-98
 - rate-determining, 410-13
- Evolutionary game, 424-27
 - random mutations and, 438-39
- Evolutionary game theory, 423-24
- Evolutionary stable strategy
 - theory, 423-40
 - continuous games and, 430-35
- dynamics of, 435-37
- matrix games and, 428-30
- Ewens, W. J., 495
- Ewing, K., 161
- Extinction, 412, 478, 497-99
- F
 - Fagaceae
 - reproduction by, 351
 - species diversity of, 350
 - Falconer, D. S., 487
 - Farris, J. S., 460, 529
 - Fauna
 - soil, 579-83
 - Feinsinger, P., 75
 - Felsenstein, J., 445
 - Fenchel, T., 19
 - Fenical, W., 111
 - Ferns
 - vicariance biogeography and, 517
 - Filter feeding, 25
 - Fisher, R. A., 427, 428
 - Fishes
 - freshwater/salt marshes and, 159-60
 - predation by
 - prey size and, 69
 - vicariance biogeography and, 516, 521
 - Fitness generating function, 425
 - Flagellates
 - nanoplankton and, 21
 - Flatworms
 - vicariance biogeography and, 516
 - Fleming, D. A., 169
 - Flesh flies
 - seasonality of, 6
 - Flett, R. J., 99
 - Flowering plants
 - pollinator-mediated interactions of, 72-73
 - Focus vesiculosus*
 - phlorotannins of, 122
 - Food chains
 - plankton, 19-35
 - microbial loop and, 22-24
 - properties of, 25-34
 - Foragers
 - coexistence of, 288-97
 - Foraging
 - desert rodents and, 285-87
 - kinship and, 549-50
 - Foraging theory
 - ecological specialization and, 214-15
 - Foraminifera
 - chloroplast symbiosis in, 32-33
 - Founder events, 407
 - Fox, L. R., 135

- Fragmentation
 - metapopulation theory and, 499-500
- Frankel, O. H., 474, 482
- Franklin, I. R., 474
- Freshwater marshes
 - community structure in, 153-61
 - comparative ecology of, 147-71
 - physical characteristics of, 149-53
- Fretwell, S. D., 183, 184
- Frogs
 - vicariance biogeography and, 516, 521
- Fruits
 - predation and pathogen infection of
 - brood reduction and, 197
- Fryer, G., 224
- Fucus distichus*
 - chemical variation in, 129
- Fucus vesiculosus*
 - phlorotannins of, 121
- Fungi
 - soil, 577-78
- Futuyama, D. J., 65, 76, 207, 224, 446
- G
- Gabriel, W., 212
- Gallardo, V. A., 320
- Gallotannin
 - herbivory and, 121
- Gambus, R. D., 45
- Gan, Y. Y., 366
- Ganeshaiah, K. N., 177
- Garofalo, D., 151
- Gastropods
 - caulerpenyne and, 124
 - phlorotannins and, 121-22
 - predation by
 - prey size and, 69-70
- Gene flow, 407
- geographic scale of, 412
- Genetic drift, 407, 411, 447
- allele loss and, 487-88
- covariances due to, 449-50
- genetic variance/covariance and, 467, 484-85
- Geospiza fortis*
 - species interactions of, 69-70
- Gilbert, L. E., 67, 74
- Gill, D. E., 73
- Gillespie, J. H., 465, 484
- Gilliam, J. F., 70
- Gilpin, M. E., 502
- Gingerich, P. D., 463
- Glossophora* spp.
 - biologically active compounds of, 118
- Glynn, P. W., 309, 313
- Godfrey, H. C. J., 7
- Goel, N. S., 491
- Goering, J. J., 29
- Goldman, J. C., 91
- Goodman, D., 494, 495
- Gosselink, J. G., 161
- Gould, F., 76, 211
- Gould, S. J., 409
- Gower, J. C., 460
- Gramminoids
 - freshwater/salt marshes and, 157
- Graneli, E., 93, 95
- Grasses
 - coevolution with mammals, 80
- Grasslands underground, 573-84
- Green algae
 - chemical defenses of, 116-17
- Greenberg, R., 213
- Greenburg, M. J., 160
- Grew, N., 261
- Grooming
 - kinship and, 550
- Growing season
 - latitude and, 1
- Gunatilleke, C. V. S., 356
- H
- Habitat selection
 - species coexistence and, 289-97
- Halidrys siliquosa*
 - phlorotannins of, 122
- Halimeda* spp.
 - biologically active compounds of, 116
 - chemical defenses of, 123-24
- Halimeda tetraacetate
 - calcified algae and, 123
- Halimeda triatal
 - calcified algae and, 123
 - green algae and, 116
- Halle, F., 354
- Halodule pinifolia*
 - pollination of, 266
- Halophila ovalis*
 - pollination of, 267
- Hamilton, W. D., 427, 543, 545
- Hanson, F. B., 495
- Haplochromis* spp.
 - ecological specialization in, 224
- Harlowe, K. L., 164
- Harpending, H. C., 450
- Harper, A. B., 195
- Harvey, J. W., 153
- Harvey, P. H., 454
- Harvey-Peel Inlet (Australia)
 - nitrogen-fixing cyanobacteria in, 100
- Hassell, M. P., 7
- Hay, M. E., 111
- Hays, C., 319
- Hecky, P. E., 94
- Heinle, R. R., 169
- Hemicellulose
 - intertidal vascular plants and, 164
- Hemiptera
 - seasonality of, 7, 11
- Hennig, W., 238, 242, 514
- Hepatitis
 - viral, 68
- Herbivory
 - effects of, 75
 - plant age and, 68
 - plant growth/reproduction and, 80-81
 - seaweeds and, 111-12
 - seaweed secondary metabolites and, 121-34
- Herrera, C. M., 187
- Hill, W. G., 450
- Hillis, D. M., 39
- Homoptera
 - seasonality of, 3, 6
- Honey bees
 - kin recognition in, 545
- Hooper, M. D., 474, 477, 478
- Hoover, J. K., 157, 158
- Host defenses
 - host-parasite systems and, 255-57
- Host-pathogen systems, 235-57
 - comparison of
 - methods for, 239-50
 - constraints on
 - coevolution and, 250-57
 - estimates of, 236-39
- Howarth, R. W., 89, 100
- Huang, A. H. C., 161
- Huey, R. B., 455
- Hummingbirds
 - flower interactions of, 75
- Humphries, C. J., 521, 523
- Hunte, W., 374, 379
- Hutchinson, G. E., 207
- Hybridization
 - genetic variation and, 397
- Hydrilla* spp.
 - pollination of, 272
- Hydrilla verticillata*
 - pollination of, 266
- Hydrocharitales
 - hydrophilous species in, 270
- Hydrocorals
 - El Nino and, 318
- Hydrophilily, 262-69
 - theoretical analyses of, 270-73

596 SUBJECT INDEX

- Hymenoptera
seasonality of, 3, 6
- I
- Impatiens capensis*
freshwater/salt marshes and,
157
- Inbreeding
dispersal and, 556
hydrophilous plants and, 275
- Inbreeding depression, 555
genetic variation and, 474-76,
482-84
- Infanticide
kinship and, 553-54
- Ingham, R. E., 580
- Insectivores
vicariance biogeography and,
516
- Insects
color polymorphisms in,
213
diet of desert rodents and,
284
freshwater/salt marshes and,
159
growth rates of
variation in, 78-79
herbivory and, 75
host shifts in
sympatric speciation and,
224-25
host specialization in
detoxifying enzymes and,
220
host specificity in, 221
oviposition decisions of,
214
restricted host use in
evolution of, 75-76
seasonality of, 1-13
classification of, 2-3
description of, 8-9
evolution of, 11-12
mechanisms of, 9-11
patterns of, 3-7
vicariance biogeography and,
516
- Interaction norms
species interactions and, 77-
79
- Interspecific competition
ecological specialization and,
216-17
insect seasonality and, 12
- Intraspecific competition
kinship theory and, 551-52
- Invertebrates
freshwater/salt marshes and,
159
- Ipomaea* spp.
species interactions of, 76
- Iron-sulfur compounds
freshwater/salt marshes and,
152
- Island biogeography, 475-76
- Isolaurinterol
seaweed chemical defense
and, 125
- Italy
insect seasonality in, 4
- Iverson, R. I., 93, 103
- J
- Jablonski, D., 412
- Jadera aeola*
seasonality of, 11
- Jadera obscura*
seasonality of, 11
- Jaenike, J., 214
- James, J. W., 487
- Janzen, D. H., 351
- Johnson, M. S., 461
- K
- Kauffman, S. A., 402, 403,
405, 416
- Kelp
El Nino and, 317, 327-28
- Kilham, P., 94
- Kimura, M., 488
- Kin recognition, 543-63
competition in, 551-55
components of, 559-61
contexts of, 544-57
cooperation in, 546-50
mating in, 555-57
mechanisms of, 558-63
ontogeny of, 561-63
parental care in, 545-46
- Kirkpatrick, M., 466
- Kitchell, J. A., 70
- Klebovich, V. V., 160
- Knauer, G. A., 99
- Knuth, P., 262
- Kotler, B. P., 281
- Kruse, K. D., 45
- Kwiecinski, B., 312
- L
- Lack, D., 497
- La Cock, G. D., 327
- Lagarosiphon* spp.
pollination of, 266
- Lagodon rhomboides*
seaweed chemical defenses
and, 125
- Lake Erie
nitrogen-fixing cyanobacteria
in, 101
- Lakes
biogeochemistry of, 99-101
- Lande, R., 218, 446, 447, 466,
483, 484, 485
- Lanisol
seaweed chemical defense
and, 127
- Larson, A., 457
- Laurencia obtusa*
chemical defenses of, 125
- Laurencia snyderae*
secondary metabolites of,
126-27
- Laurencia* spp.
biologically active compounds
of, 116
- Laurie, W. A., 317
- Lawlor, R. L., 434
- LeConte, J., 42
- Leigh, E. G., 494
- Lenski, R. E., 73
- Lepidoptera
seasonality of, 3-4, 6
seasonal migration of,
4-5
- Lepilaena bilocularis*
pollination of, 268
- Lepilaena cylindrocarpa*
pollination of, 267, 272
- Lessios, H. A., 378, 380
- Leucaena* spp.
pollen grain germination in
inhibition of, 197
- Levin, B. R., 73, 74
- Levins, R., 209, 221, 480
- Lewontin, R. C., 450
- Lieberman, D., 187
- Lieberman, M., 187
- Lignin
intertidal vascular plants and,
164
- Limosella aquatica*
pollination of, 262
- Linnaeus, C., 261
- Linsley, E. G., 225
- Littlejohn, M. J., 44-45, 47
- Littorina littorea*
phlorotannins and, 121
- Lizards
habitat utilization of, 216
interspecific competition in,
221
vicariance biogeography and,
516
- Lockie, J. D., 195
- Lohmann, H., 21
- Lomatium dissectum* seeds
ground-foraging beetles and,
66
- Lomatium grayi*
seed parasites of, 72
- Lonicera caprifolium*
scent threshold of, 272

- Lotus corniculatus*
populations of
cyanogenic/acyanogenic
plants in, 71
- Lyngbya majuscula*
mujusculamides of, 118-19
- Lynch, J. M., 579
- Lynch, M., 212, 450
- Lyngbyatoxin A
"swimmer's itch" and, 118-19
- Lytechinus variegatus*
caulerpyne and, 124
- M**
- Macadonia* spp.
parent-offspring conflict in,
194
- MacArthur, R. H., 221, 479, 491
- Mace, G. M., 454
- Macroalgae
El Nino and, 317
- Macrocytis* spp.
El Nino and, 317, 327-28
"tanning" of, 121-22
- Macroevolution
host-pathogen systems and,
235-36
- Maidenia* spp.
pollination of, 266
- Majusculamides
blue-green algae and, 118
- Malaysia
insect seasonality in, 11
- Malicky, H., 12
- Mammals
coevolution with grasses, 80
freshwater/salt marshes and,
161
kin recognition in, 545-46
vicariance biogeography and,
516
- Mangroves
freshwater/salt marshes and,
158
- Maniula jurina*
adult activity periods of, 4
- Marchant, R., 578
- Marine algae
secondary metabolites of,
112-21
chemical methodology and,
119-21
- Marine ecosystems
nutrient limitation in, 89-107
biogeochemical mechanisms
regulating, 97-101
case studies of, 101-5
definition of, 91-92
evidence for, 92-97
- Marine iguanas
El Nino and, 322-24, 330
- Marsupials
vicariance biogeography and,
516
- Mating
ecological specialization and,
217
kin discrimination and, 555-57
- Maturation
kinship and, 556-57
- May, R. M., 489, 490
- Mayden, R. L., 530
- Mayr, E., 42, 486
- McAlister, W. H., 44
- Measles
population size and, 73
- Measles virus
maternal antibodies and, 68
- Mecham, J. S., 44, 45, 46
- Medicago sativa*
parent-offspring conflict in,
188
- Meiotic drive, 407, 413-14
- Melanoplus bivittatus*
nymphal survival in
diet and, 79
- Mendel, G., 423
- Menges, E. S., 493
- Mesograzers
seaweed chemical defenses
and, 131
- Metapopulation, 479-99
- Metapopulation theory
fragmentation and, 499-500
- Methanogenesis
freshwater/salt marshes and,
165-66
- Mickevich, M. F., 461, 518, 529
- Microbes
role in seawater, 20-21
- Microevolution
host-pathogen systems and,
235-36
- Microplankton, 21-22
- Migration
insect seasonality and, 9
- Mills, E. L., 20
- Mineral cycling
pelagic ecosystem and, 29-30
- Mitchell, J. G., 31
- Mitchell, W. A., 428
- Mitochondria
evolution of, 415
- Mitsch, W. J., 161
- Miyamoto, M. M., 525
- Mock, B. A., 73
- Mogensen, H. L., 194
- Molecular drive, 413-14
- Molluscs
ecological specialization in,
224
- Monocotyledons
hydrophilous species of, 269-70
- Monocism
hydrophilous plants and, 274
- Monoterpenes
red algae and, 116
- Moore, J. A., 43, 44, 51, 52
- Moore, N. W., 474, 499
- Moreno, G., 207
- Morgenstern, O., 428
- Moringa
pollen grain germination in,
197
- Morphological systematics
limits of, 457-59
- Morris, J. T., 163
- Motro, U., 485
- Muironia metallica*
seasonality of, 7
- Müllerian mimicry
mutualism and, 67
- Murphy, R. P., 188
- Mutation
evolutionary processes and,
397-98
phenotypic, 399
- Mutual association
macroevolution and, 236
- Mutualism
evolution of
age structure and, 68-69
indirect, 76-77
obligate, 415
plankton food chains and, 32-33
species interactions and, 67, 72-73
- Mycorrhizae
Agropyron smithii and, 78
vesicular-arbuscular, 576-77
- Myers, V. B., 93, 103
- N**
- Najadaceae
hydrophilous species in, 270
- Najadales
hydrophilous species in, 270
- Najas* spp.
pollination of, 268
- Nakamura, R. R., 188
- Nanoplankton, 21
primary production of, 22, 28
- Narragansett Bay (Rhode Island)
nutrient limitation in, 101-2
- Nash, J. F., 427
- Natural selection, 407-8, 411
covariances due to, 451-53
genetic variance/covariance
and, 467
response to, 446-47

- Nebria brevicollis*
adult activity periods of, 4
Nechamandra spp.
pollination of, 266
Nei, M., 450
Nelson, G., 240, 513, 520,
521, 523
Nematodes
soil and, 579-82
Neorhodomela larix
chemical defenses of, 127
chemical variation in, 128
Netherlands
insect seasonality in, 5, 12
Neuroptera
adult activity period of, 5
Newmark, W. D., 503, 504
Nicotiana spp.
pollen grain germination in
inhibition of, 197
Nienhuis, P. H., 158
Nitrogen
nutrient limitation in seawater
and, 89
photosynthetic cells and, 28
phytoplankton and, 94-96
Nitrogen fixation
marine ecosystems and, 99-
101
tidal freshwater marshes and,
168
North Pacific Gyre
nutrient limitation in, 105
Nuphar luteum
freshwater/salt marshes and,
156
Nyssa sylvatica var. *biflora*
freshwater/salt marshes and,
158
O
Oceanography
biological, 19-20
Ochroma pyramidale
species interactions of, 70-
71
Ochrodene
seaweed chemical defense
and, 125
Ochrodene secundiramea
chemical defenses of, 125
Ochrodene spp.
biologically active compounds
of, 116
O'Connor, R. J., 189, 191, 192
Oden, N. L., 459
O'Dowd, D. J., 70
Odum, W. E., 149, 153, 157,
158, 159
Oldeman, R. A. A., 354
Oldham, R. S., 44-45
Oligochaetes
freshwater/salt marshes and,
159
Oncopeltus fasciatus
adult activity of, 4
Opherophora brumaia
activity period of, 5
Ord, J. K., 459
Ornstein, L. S., 464
Oscillatoriaceae
toxic secondary metabolites
of, 118
Oster, G. F., 403
Outbreeding, 555
Outbreeding depression
genetic variation and, 488-
89
Overwintering
insect seasonality and, 9
P
Pacarina championi
seasonality of
rainy season and, 10
Pace, A. E., 45
Pachydictyol-A
brown algae and, 118
extraction of, 119
seaweed chemical defense
and, 125
Pachydictyon spp.
biologically active compounds
of, 118
Pandanus tectorius
pollen capture in, 272
Papilio glaucus
polyphagous habit of, 222
Parainfluenza viruses
maternal antibodies and, 68
Paramoeba spp.
sea urchin mortality and, 376-
77
Parasites
association by colonization
and, 236
association by descent and,
236
species interactions and, 66
virulence in
evolution of, 69, 73
See also Host-parasite systems
Parasitism
ecological specialization and,
217
plankton communities and, 25
Parechinus spp.
phlorotannins and, 123
Parental care
kinship and, 545-46
Parenti, L., 521, 523
Parker, M. A., 72
Parimony analysis
vicariance biogeography and,
528-29
Patuxent River estuary (Mary-
land)
nutrient limitation in, 102
Pautler, L. P., 197
Pavan, C., 5
Peltandra virginica
freshwater/salt marshes and,
157
Penicillium spp.
biologically active compounds
of, 116
Perez-Tome, J. M., 552
Petersen, H., 583
Pettersson, B., 498
Phaeophyta
chemical defenses of, 117-
18
Phaseolus vulgaris
parent-offspring conflict in,
188
Phenacoccus hargreavesi
seasonality of, 7
Phenolics
algal, 117-18
Phloroglucinol dihydrate
herbivory and, 121
Phlorotannins, 117-18
distribution of, 126-27
extraction of, 120-21
herbivory and, 121-23
marine herbivore feeding and,
136-37
Phosphorus
mycorrhizal plants and, 78
nutrient limitation in seawater
and, 89
photosynthetic cells and, 28
phytoplankton and, 94-96
Photoperiod
insect seasonality and, 9-10
Phragmites australis
freshwater/salt marshes and,
156
Phyllospadix spp.
pollination of, 269
Phylogenetic systematics
vicariance biogeography and,
513-14
Phytoplankton
marine food chain and, 20
nitrogen/phosphorus needs of,
94-96
nutrient limitation and, 91
Picoplankton, 21
primary production of, 22, 28
Piper nigrum
pollination of, 269
Plankton communities
composition of, 20-22
parasitism and, 25

- Plankton food chains, 19-35
 microbial loop and, 22-24
 properties of, 25-34
- Plant apparency model
 plant-herbivore interactions
 and, 135-39
- Plants
 ant interactions of, 73
 brood reduction in, 196-97
 brood size patterns in, 179-82
 mechanisms of, 197-99
 model of, 182-87
 flowering
 pollinator-mediated interactions of, 72-73
 hydrophilous
 convergent evolution in,
 273-75
 distribution of, 269-70
 research and, 275
 parent-offspring conflict in,
 188-95
 pathogen interactions of, 71-72
 susceptibility to disease in
 ontogenetic changes and,
 68
 vascular
 decomposition rates of,
 163-64
 freshwater/salt marshes and,
 153-57
 vicariance biogeography and,
 517
- Plate tectonics
 vicariance biogeography and,
 513
- Platnick, N. I., 520, 521, 523
- Platneuromus* spp.
 adult activity period of, 5
- Plecoptera
 seasonality of, 7
- Placaniaceae
 biologically active compounds
 of, 116
- Placanium cartilagineum*
 chemical variation in, 128
- Placanium* spp.
 biologically active compounds
 of, 116
- Pocillopora damicornis*
 El Nino and, 319
- Poliomyelitis, 68
- Pollination
 hydrophilous, 261-75
- Polychaetes
 seaweed chemical defenses
 and, 131
- Polygonum arifolium*
 freshwater/salt marshes and,
 157
- Polymorphism
 maintenance of, 210
- multiple-niche
 empirical evidence for,
 212-14
 species interactions and, 71
- Polypheonolics
 brown algae and, 117-18
 seaweeds and, 112
- Population biology
 conservation and, 473-504
- Population size
 bottlenecks and, 485-86
 effective, 480-82
 genetic drift and, 484-85
 inbreeding depression and,
 482-84
 minimum viable, 479-99
 outbreeding depression and,
 488-89
- Posidoniaceae
 hydrophilous species in, 270
- Potamogetonaceae
 hydrophilous species in, 270
- Potamogeton* spp.
 pollination of, 269
- Predation
 desert rodents and, 287, 291-92
Diadema antillarum mass
 mortality and, 385-86
 Dipterocarp seedlings and,
 353
 ecological specialization and,
 217
 species interactions and, 66
- Predator/prey interactions
 classification of, 66
 sublethal damage in, 80
- Preston, F. W., 477
- Price, G. R., 428
- Price, K. S., 90
- Price, P. W., 224
- Primack, R. B., 351
- Prokaryotes
 picoplankton and, 21
- Protandry
 hydrophilous plants and, 275
- Protogyny
 hydrophilous plants and, 275
- Protozoa
 soil and, 582
- Prunus serotina*
 species interactions of, 70
- Pseudamphitoides incurvaria*
 seaweed chemical defenses
 and, 131
- Pseudochlorodesmis furcellata*
 chemical defenses of, 124
- Pseudochlorodesmis* spp.
 biologically active compounds
 of, 116
 chemical defenses of, 124
- Psocoptera
 seasonality of, 7
- Puccinia graminis tritici*
 wheat plants resistant to, 79
- Puccinia* spp.
 species interactions of, 71-72
- Pupfish
 short-term thermal tolerances
 of, 214
- Q
- Quantitative character phylogenies, 445-68
- Quantitative genetics
 genetic drift and, 447
 response to selection and,
 446-47
- Quercus gambelii*
 parent-offspring conflict in,
 194
- Quinn, W. H., 314, 315
- R
- Radiolaria
 microplankton and, 22
- Rana areolata*, 43
 breeding of, 50
- Rana berlandieri*, 43-47, 52, 54, 56
 breeding of, 50
- Rana blairi*, 43-46, 50, 56
- Rana burnsi*, 42
- Rana chiricahuensis*, 45-47, 54, 56
- Rana dunni*, 45, 56
- Rana fisheri*, 58
- Rana forreri*, 45, 47, 52, 56
- Rana kandiyohi*, 42
- Rana magnaocularis*, 45, 47, 56
- Rana megapoda*, 45, 56
- Rana miadis*, 42, 56
- Rana montezumae*, 45-46, 56
 breeding of, 50
- Rana neovolcanica*, 56
- Rana noblei*, 42
- Rana omilemana*, 58
- Rana onca*, 58
- Rana palmipes*, 55
- Rana palustris*, 42
 breeding of, 50
- Rana pipiens* complex
 conservation of, 57-58
 contact zones of, 46-51
 isolating mechanisms of, 46-51
 karyotypes of, 51
 laboratory crosses of, 51-54
 morphological variation in,
 44, 54-55
 phylogenetic groups of, 46
 phylogeny of, 55-57
 species boundaries of, 40
 systematics of, 39-58

- Rana spectabilis*, 54, 56
 breeding of, 50
Rana spinocephala, 42-47, 54, 56
 breeding of, 50
Rana tarahumarae, 55
Rana taylori, 52, 56
Rana tlaloci, 56, 58
Rana virescens, 42
Rana yavapaiensis, 56
 Raptorial feeding, 25
 Rausher, M. D., 76
 Raveh, A., 9
 Reaction norms
 species interactions and, 77
 Read, B., 482, 483
 Reagan, R., 480
 Red algae
 chemical defenses of, 116
 Reddingius, J., 492
 Redfield, A. C., 91, 94
 Red tides
 El Nino and, 324
 Reeve, H. K., 558
 Remane, A., 159, 237
 Reptiles
 freshwater/salt marshes and, 160
 Resource partitioning
 species coexistence and, 285, 288-89
 Rhizomes
 freshwater/salt marshes and, 157
 Rhizophyllidaeae
 biologically active compounds of, 116
 Rhizoplane
 communities of, 578-79
 Rhizosphere, 574-83
 Rhodomelaceae
 biologically active compounds of, 116
 Rhodophyta
 chemical defenses of, 116
 Rhopalidae
 seasonality of, 11
 Richter-Dyn, N., 491
 Ridley, M., 455
 Robertson, A., 487
 Rogers, A. R., 450
 Roos, M. C., 525, 529, 532, 533, 534, 535
 Root biomass, 574-76
 Roots
 symbionts and, 576-77
 Rosen, D. E., 514, 518, 519, 520
 Roughgarden, J., 68, 434
 Rovira, A. D., 577
 Rudbeckia laciniata
 aphids and, 79
 Ruppiaceae
 hydrophilous species in, 270
 Ruppia marina
 pollination of, 273
 Ruppia spp.
 pollination of, 267
 Ryther, J. H., 95
 S
 Saccharosyne saccharivora
 seasonality of, 7
 Salamanders
 vicariance biogeography and, 516
 Salinity
 freshwater/salt marshes and, 150
 Salt marshes
 community structure in, 153-61
 comparative ecology of, 147-71
 physical characteristics of, 149-53
 Samson, F. B., 491, 494, 495
 Sargassum cristaeifolium
 phenolics of, 120
 Sargassum polycystum
 phenolics of, 120
 Sayres, E. R., 188
 Scharloo, W., 405, 414
 Schemske, D. W., 197, 485
 Schluter, D., 452, 453
 Scirpus americanus
 freshwater/salt marshes and, 157
 Sculthorpe, C. D., 269
 Seabirds
 El Nino and, 321-22, 328-29
 Sea hares
 seaweed chemical defenses and, 133
 Sea lion pox disease
 El Nino and, 323
 Search theory
 pollen morphology and, 271-72
 stigma morphology and, 272-73
 Sea urchins
 El Nino and, 324-25
 seaweed chemical defenses and, 131
 Seaweeds
 chemical defenses of, 111-40
 herbivore diversity and, 130-34
 secondary metabolites of
 distribution of, 126-29
 herbivory and, 121-34
 Sedgeley, M., 194
 Seed abortion
 brood reduction in plants and, 196
 Seed dispersal
 brood patterns in plants and, 185-87
 Seed packing
 brood size in plants and, 183
 Seeds
 diet of desert rodents and, 284
 Seed size
 brood patterns in plants and, 184-85
 Self-fertilization
 hydrophilous plants and, 275
 Self-sacrifice
 kinship and, 548-49
 Selymbria ahyetos
 seasonality of
 rainy season and, 11
 Selymbria pluvialis
 seasonality of
 rainy season and, 10
 Serodes, J. B., 151
 Serodes, S. B., 161
 Sesquiterpenes
 red algae and, 116
 Sesquiterpenoids
 green algae and, 116
 Sessions, S. K., 457
 Sethian, J., 272, 273
 Sexual selection, 415-16, 427
 Shaanker, R. U., 177
 Shaffer, H. B., 446, 452
 Shaffer, M. L., 491, 492
 Shapiro, S. S., 315
 Shorea macroptera
 subspecies of, 359
 Shorebirds
 freshwater/salt marshes and, 161
 Sieburth, J. McN., 21
 Siganus spinus
 caulterpenyne and, 124
 diterpenoids and, 124
 halimedaetraacetate and, 123
 Simberloff, D., 473, 534
 Simon, C. M., 462
 Simpson, G. G., 225, 465
 Singh, J. S., 575
 Slatis, H. M., 498
 Slatkin, M., 488
 SLOSS, 477-79
 Smetacek, V., 34
 Smith, C. C., 183, 184
 Smith, M., 423, 424, 427, 428, 434
 Smith, S. V., 92, 94, 104
 Smock, L. A., 164
 Smouse, P. E., 450

- Snakes
ecological specialization in, 224
vicariance biogeography and, 516
- Sober, E., 407, 461
- Sohlenius, B., 579
- Soil
microflora of, 577-78
- Sokal, R. R., 459
- Soule, M. E., 474, 482, 502, 504
- Spallanzani, L. V., 261
- Sparisma radians*
caulterpenyne and, 124
halimedaetraacetate and, 123
- Spartina alterniflora*
decomposition rate of, 164
freshwater/salt marshes and, 156-57
growth of
salt and, 162
photosynthetic pathway of, 163
primary production of, 161
- Speciation, 412
- Species
geographic differences within, 459-60
- Species interactions, 65-81
correlated outcomes of, 75-76
distributed outcomes of, 68-71
age-dependent, 68-69
size-dependent, 69-71
evolutionary changes in, 79-81
genotypic, 71-72
indirect outcomes of, 76-77
interaction norms and, 77-79
patch dynamics of, 74-75
population size, density, sub-division and, 72-74
reaction norms and, 77
typological vs. populational approaches to, 66-68
- Sphaerococcus* spp.
biologically active compounds of, 116
- Sprengel, C. K., 261, 262
- Stearns, S. C., 9
- Stebbins, G. L., 417, 452
- Steele, J. H., 20, 34
- Steinberg, P. D., 137
- Stenotarsus rotundus*
diapause termination in, 10
- Stewart, F. M., 74
- Stinson, C. H., 193
- Strebel, D. E., 494
- Strongylocentrotus purpuratus*
phlorotannins and, 122
- Stypoldione
distribution of, 127
- Stypopodium zonale*
chemical defenses of, 125, 127
chemical variation in, 128
- Stypotriol
distribution of, 127
seaweed chemical defense and, 125
- Sulfur
freshwater/salt marshes and, 151
- Sulfuric acid
brown algae and, 118
- Survivorship
kinship and, 552
- Swain, T., 135
- Symbionts
roots and, 576-77
- Symbiosis
plankton food chains and, 32-33
- Synchytrium decipiens*
species interactions of, 72
- Syringodium* spp.
pollination of, 268
- T
- Tammarind
pollen grain germination in inhibition of, 197
- Tannins
marine herbivore feeding and, 136-37
- Taper, M. L., 216
- Taphura hastifera*
seasonality of
rainy season and, 10
- Tapiero, C. S., 9
- Tarazona, J., 326
- Taxodium distichum*
freshwater/salt marshes and, 158
- Tegner, M. J., 327
- Tegula brunnea*
phlorotannins and, 122
- Tegula funebris*
phlorotannins and, 121-22
- Temperate zone
insect seasonality in, 3-7
- Temperature
insect seasonality and, 9-10
- Templeton, A. R., 67, 482, 483, 486, 488
- Termites
soil and, 582-83
- Terpenes
red algae and, 116
seaweeds and, 112
- Terpenoids
brown algae and, 118
calcified algae and, 123
extraction of, 119-20
seaweed chemical defense and, 124-25
- Tetranychus urticae*
species interactions of, 76
- Thalassia testudinum*
flowering of, 267-68
terpenoids and, 124-25
- Thomas, L., 424
- Thompson, E., 448
- Thompson, J. N., 65
- Thomson, G., 485
- Thorpe, R. S., 459
- Tilapia* spp.
ecological specialization in, 224
- Tilman, D., 70
- Toro, M. A., 552
- Trees
freshwater/salt marshes and, 158
- Trichoptera
seasonality of, 3, 7
- Trivers, R. L., 188
- Troude, J. P., 151
- Tuckwell, H. C., 495
- Turbinaria ornata*
phenolics of, 120
- Turelli, M., 484
- Tydemania expeditionis*
chemical defenses of, 124
- Tydemania* spp.
biologically active compounds of, 116
chemical defenses of, 124
- Typha latifolia*
freshwater/salt marshes and, 156
- U
- Udoteal
seaweeds and, 124
- Udotea* spp.
biologically active compounds of, 116
chemical defenses of, 124
- Uhlenbeck, G. E., 464
- Ultraviolet light
coral reef invertebrates and, 398
- Uroleucon rudbeckiae*, 79
- Ustilago hordei*
gene-for-gene interactions of, 77

602 SUBJECT INDEX

V

- Valiela, I., 96
Vallisneria spiralis
 pollination of, 263
Vallisneria spp.
 pollination of, 262
 Valone, T. J., 428
 Vaughn, C., 503
 Vegetation
 diet of desert rodents and,
 284
 Via, S., 218
 Vicariance biogeography, 513-
 35
 analytical methods in, 517-34
 study of groups in, 516-17
 Vicariance paradigm, 514-16
 Vincent, T. L., 423
 Viral hepatitis, 68
 Voltinism
 insect seasonality and, 9
 von Neumann, J., 428
 Vrba, E. S., 224, 409

W

- Waddington, C. H., 404
 Walker, L. R., 75
 Warburganal, 116
 Ward, H. M., 194
 Water
 hydrophilous pollination and,
 262

Waterfowl

- freshwater/salt marshes and,
 161
 Watson, G., 497
 Watterson, G. A., 485
 Weaver, J. E., 575
 Webb, C. J., 195
 Werner, E. E., 70
 Wild rice
 freshwater/salt marshes and,
 156, 157
 Wiley, E. O., 476, 519, 520,
 534
 Wilk, M. B., 315
 Williams, A. H., 385
 Williams, G. C., 409
 Willis, E. O., 479
 Wilson, E. O., 479, 491, 501
 Wolda, H., 1, 10
 Wood, B. J., 11
 Wood, J. W., 481
 Woodlice
 kin recognition in, 545
 Wright, A. H., 46
 Wright, S., 446, 447, 462, 465,
 480

Y

- Yoo, B. H., 411, 414, 415
 Younglao, D., 379
Yponomeuta spp.
 feeding behavior of, 223

Z

- Zandee, M., 525, 529, 532,
 533, 534, 535
 Zannichelliaceae
 hydrophilous species in, 270
Zannichellia spp.
 pollination of, 268
 Zeeman, E. C., 430
 Zeng, Z.-B., 452
 Zimmerman, B. L., 502
Zizania aquatica
 freshwater/salt marshes and,
 157
Zonaria spp.
 biologically active compounds
 of, 118
 Zooplankton
 El Nino and, 318
 freshwater/salt marshes and,
 159
 marine food chain and, 20
 microplankton and, 22
 primary production of, 22
 remineralization and, 29
 Zooxanthellae invertebrates
 bleaching of
 El Nino and, 332-33
 Zosteraceae
 hydrophilous species in, 270
Zostera marina
 mass mortality of, 374
Zostera spp.
 pollination of, 269

